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2 **CLAIMS**

3 1. A system comprising:
4 a plurality of sources; and
5 an interface, selectively coupled to the plurality of sources, to generate and
6 implement a development project of processing chains, wherein the interface loads
7 a processing chain for each of the plurality of media sources at a point during the
8 execution of the project when the chain is required, and wherein the interface is
9 configured to unload at least a subset of the chains when they are not required.

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11 2. A system according to claim 1, wherein the interface is a render
12 engine, exposed to a media processing system implemented on a computing
13 system.

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15 3. A system according to claim 1, further comprising an application
16 program, coupled to the interface, to enable a user to define a media processing
17 project.

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19 4. A system according to claim 1, wherein the interface only loads those
20 processing chains required during the next M seconds of project execution and, if
21 the currently loaded chain-count does not exceed a threshold, T.

22
23 5. A system according to claim 4, wherein M is less than a time required
24 to load a processing chain.
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1 6. A system according to claim 4, wherein if the currently loaded chain-
2 count has reached a threshold, T , the interface identifies one or more currently
3 loaded chains that can be unloaded.

4
5 7. A system according to claim 6, wherein the interface identifies one or
6 more currently loaded chains that will not be used during the next N seconds to
7 unload.

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9 8. A system according to claim 7, wherein M is less than N .

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11 9. A system according to claim 7, wherein the interface determines
12 whether the identified one or more chains will be required during subsequent
13 execution of the project, or in a future project and, if so, caches the identified
14 chain(s).

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16 10. A system according to claim 7, wherein the interface determines
17 whether unloading of the identified one or more chains reduces the chain-count
18 below a maximum allowable threshold, V , and, if so, loads the chains required in
19 the next M seconds.

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21 11. A system according to claim 9, whereupon determining that the
22 chain-count is not below V , the interface identifies one or more lowest priority
23 chains and unloads the identified chain(s).

1 12. A system according to claim 10, wherein the interface removes the
2 identified chains from the active project and caches the removed chains.

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4 13. A system according to claim 10, wherein the interface loads the
5 chains required during the next M seconds.

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7 14. A system according to claim 6, wherein the interface unloads a
8 chain when all matrix switch filter(s) of the filter graph provide an indication that
9 the chain is no longer required.

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11 15. A system according to claim 4, wherein T is set to one (1).

12
13 16. A system according to claim 15, whereby setting T equal to one (1),
14 the interface will be required to search for and potentially unload chains which are
15 not required to support execution of the project for the next N seconds.

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17 17. A method for generating and managing a development project, the
18 method comprising:

19 identifying processing chains required to support execution of the
20 development project over the next M seconds; and

21 loading the identified processing chains as long as a currently loaded chain-
22 count does not exceed an initial threshold, T.

1 **18.** A method according to claim 17, further comprising:
2 identifying currently loaded chains that will not be used during the next N
3 seconds; and
4 removing the identified chains from the development project.

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6 **19.** A method according to claim 18, further comprising:
7 determining whether the chain-count has dropped below a maximum
8 allowable chain-count, V, after removing the identified chains from the
9 development project;
10 identifying one or more low priority chains and removing them from the
11 development project; and
12 loading the chains required in the next M seconds.

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14 **20.** A method according to claim 18, wherein removing the identified
15 chains comprises:
16 determining whether the identified chains will be required during
17 subsequent execution of the development project or future development projects;
18 and
19 caching the identified chains if they will be used during subsequent
20 execution of the development project and/or future projects.

21
22 **21.** A method according to claim 17, wherein T is set to one (1) such
23 that an implementing media processing system always attempts to unload unused
24 chains prior to loading chains.
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1 **22.** A method for managing a media processing project, the method
2 comprising:

3 identifying each of a plurality of sources required to satisfy the media
4 processing project;

5 determining when one or more chain(s) associated with each of the
6 plurality of sources is required to support execution of the media processing
7 project; and

8 selectively loading and unloading each of the chains during execution of
9 the filter graph based, at least in part, on when each of the chains are required to
10 support execution of the media processing project.

11
12 **23.** A method according to claim 22, wherein loading and unloading
13 chains comprises:

14 identifying which processing chain(s) will be required within the next M
15 seconds of project execution; and

16 loading the identified processing chain(s) if a currently loaded chain-count
17 does not exceed a threshold, T.

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19 **24.** A method according to claim 23, further comprising:

20 identifying one or more processing chains that will not be required in the
21 next N seconds if the chain-count threshold T has been reached; and

22 removing the identified one or more processing chains from the processing
23 project.

1 **25.** A method according to claim 24, wherein removing the identified
2 one or ore processing chains comprises:

3 determining whether the identified processing chains will be required
4 during subsequent execution of the media processing project, or a future
5 processing project; and

6 caching at least a subset of the processing chains if they will be required
7 during subsequent execution of the media processing project, or future processing
8 project(s).

9
10 **26.** A method according to claim 24, further comprising:

11 determining whether removing one or more of the identified processing
12 chains reduces the chain-count below a maximum allowable threshold, V; and

13 identifying one or more low priority processing chains to remove to reduce
14 the chain-count below the maximum allowable threshold if it is determined that
15 the chain-count exceeds the maximum allowable threshold V.

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17 **27.** A method according to claim 26, wherein V is greater than T.

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19 **28.** A method according to claim 23, wherein T is set to one (1).

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21 **29.** A storage medium comprising a plurality of executable instructions
22 which, when executed, implement a method according to claim 22.
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1 **30.** A computing system comprising:
2 a storage medium having stored therein a plurality of executable
3 instructions; and
4 an execution unit, coupled to the storage medium, to execute at least a
5 subset of the plurality of executable instructions to implement a method according
6 to claim 22.

7
8 **31.** A storage medium comprising a plurality of executable instructions
9 which, when executed, implements an interface to manage development and
10 execution of a development project, wherein the interface identifies processing
11 chains required to support execution of the development project over the next M
12 seconds, and loads the identified processing chains as long as a currently loaded
13 chain-count does not exceed an initial threshold, T.

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15 **32.** A storage medium according to claim 31, wherein the interface
16 identifies one or more processing chains that will not be required to support
17 execution of the development project over the next N seconds, and removes such
18 chains from the development project.

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20 **33.** A storage medium according to claim 32, wherein T is set equal to
21 one (1) to force the interface to identify chains to unload before loading each chain
22 required to support processing of the development project over the next M
23 seconds.

1 34. A storage medium according to claim 32, wherein the interface
2 determines whether removed processing chains will be required in support of
3 subsequent processing of the development project and/or a future development
4 project and, if so, caches the removed processing chains for subsequent use.
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